



EUROPEAN COMMISSION

DIRECTORATE-GENERAL

CLIMATE ACTION

**Directorate B - European & International Carbon Markets**

Guidance Document n°1  
on the harmonized free allocation methodology for the EU-ETS  
post 2012

**General Guidance to the allocation methodology**

*Final version issued on 14 April 2011*

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# 1 Introduction

## 1.1 Status of the Guidance Documents

This guidance document is part of a group of documents, which are intended to support the Member States, and their Competent Authorities, in the coherent implementation throughout the Union of the new allocation methodology for Phase III of the EU ETS (post 2012) established by the Decision of the Commission [Date of adoption and OJ reference to be added when available] on “Transitional community-wide and fully harmonised implementing measures pursuant to Article 10a(1) of the EU ETS Directive” (CIMs) and developing the National Implementation Measures (NIMs).

The guidance does not represent an official position of the Commission and is not legally binding.

This guidance document is based on a draft provided by a consortium of consultants (Ecofys NL, Fraunhofer ISI, Entec). It takes into account the discussions within several meetings of the informal Technical Working Group on Benchmarking under the WGIII of the Climate Change Committee (CCC), as well as written comments received from stakeholders and experts from Member States. It was agreed that this guidance document reflects the opinion of the Climate Change Committee, at its meeting on 14 April 2011.

The guidance papers do *not* go into detail regarding the procedures that Member States apply when issuing greenhouse gas emissions permits. It is acknowledged that the approach to setting the installation boundaries laid down in GHG emissions permits differ between Member States.

## 1.2 Background of the CIM Guidance Documents

Specific topics were identified within the CIMs which deserve further explanation or guidance. The CIM guidance documents intend to address these issues as specific and clear as possible. The Commission considers it necessary to achieve the maximum level of harmonisation in the application of the allocation methodology for phase III.

The CIM guidance documents aim at achieving consistency in the interpretation of the CIMs, to promote harmonisation and prevent possible abuse or distortions of competition within the Community. The full list of those documents is outlined below:

In particular:

- Guidance document n. 1 – general guidance: this guidance gives a general overview of the allocation process and explains the basics of the allocation methodology.
- Guidance document n. 2 – guidance on allocation methodologies: this guidance explains how the allocation methodology works and its main features.

- Guidance document n. 3 – data collection guidance: this guidance explains which data are needed from operators to be submitted to the Competent Authorities and how to collect them. It reflects the structure of the data collection template provided by the EC.
- Guidance document n. 4 – guidance on NIMs data verification: this guidance explains the verification process concerning the data collection for the National Implementation Measures<sup>1</sup>.
- Guidance document n. 5 – guidance on carbon leakage: it presents the carbon leakage issue and how it affects the free allocation calculation.
- Guidance document n. 6 – guidance on cross boundary heat flows: it explains how the allocation methodologies work in case of heat transfer across the 'boundaries' of an installation.
- Guidance document n. 7 – guidance on new entrants and closures: this guidance is meant to explain allocation rules concerning new entrants as well as the treatment of closures.
- Guidance document n. 8 – guidance on waste gas and process emission sub-installation: this document provides for explanation of the allocation methodology concerning process emission sub-installation, in particular, concerning the waste gas treatment.
- Guidance document n. 9 – sector specific guidance: this guidance provides for detailed description of the product benchmarks as well as the system boundaries of each of the product benchmarks listed within the CIMs.

This list of documents is intended to complement other guidance papers issued by the European Commission related to Phase III of EU ETS, in particular:

- Guidance on Interpretation of Annex I of the EU ETS Directive (excl. aviation activities), and
- Guidance paper to identify electricity generators

References to Articles within this document generally refer to the revised EU ETS Directive and to the CIMs.

### **1.3 Use of the Guidance documents**

The guidance documents give guidance on implementing the new allocation methodology for Phase III of the EU ETS, as from 2013: the Member States may use this guidance when they perform the data collection pursuant to Article 7 of the CIMs in order to define the complete list of installations as well as to calculate any free allocation to be determined for the National Implementing Measures (NIMs) pursuant to Article 11(1) of the Directive 2003/87/EC.

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<sup>1</sup> Article 11 of Directive 2003/87/EC

#### **1.4 Scope of this guidance document**

This guidance document presents the issue of Carbon Leakage and its implications concerning the allocation process.

The guidance provides for simple explanation of the rules as well as practical examples that may help in solving concrete problems related to the evaluation of the carbon leakage exposure of production processes.

#### **1.5 Additional guidance**

Next to the guidance documents, additional support to the Member State authorities is provided in the form of a telephone helpdesk, and the EC-website, with list of guidance documents, FAQs and useful references,

[http://ec.europa.eu/clima/policies/ets/benchmarking\\_en.htm](http://ec.europa.eu/clima/policies/ets/benchmarking_en.htm) .

## 2 Objective

*Before going into the details of the new allocation methodology some background information is provided here in order to understand how the new allocation methodology in Phase III connects to and differs from the allocation methodology used in the previous Phases.*

The amendment to the Directive on the EU ETS was published on 5 June 2009. An important element of the revised EU ETS Directive is a Community-wide harmonised allocation method in which “auctioning should be the basic principle for allocation, as it is the simplest and generally considered to be the most economically efficient system”<sup>2</sup>. No free allocation shall, according to the revised Directive, be made in respect of any electricity production with the exception of electricity produced from waste gases<sup>3</sup>. Also, no free allocation shall be given to installations for the capture, pipelines for the transport or to storage sites for carbon dioxide.

For other emissions, transitional free allocation based on community-wide ex-ante benchmarks will be used. This implies:

- For products with a product benchmark, the amount of free allocation is based on specific emissions at *product level*.
- “Transitional” means that the free allocation is initially 80% of the quantity determined via the Community-wide implementation measures and decreases each year by equal amounts resulting in 30% free allocation in 2020, with a view to reaching 0% (and thus no free allocation) in 2027.
- Exceptions are made for installations in sectors which are exposed to significant risk of carbon leakage, i.e. “an increase in greenhouse gas emissions in third countries where industry would not be subject to comparable carbon constraints”<sup>4</sup>. Those installations will receive free allowances of 100% of the quantity determined via the Community-wide implementation measures.

Phase III has been designed to create a level playing field between all sectors and installations. The main differences in approach are summarized in the table below.

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<sup>2</sup> Directive 2009/29/EC, recital 15

<sup>3</sup> Article 10a(1) of the revised ETS Directive

<sup>4</sup> Directive 2009/29/EC, recital 24

**Table 1: Main differences between EU-ETS in Phase I & II versus Phase III (only the main methods were reported)**

<b>Phase I &amp; II</b>	<b>Phase III</b>
National caps	EU-wide cap
Fixed cap	Fixed cap, which is annually decreasing
3 & 5 years trading period	8 years trading period
Limited auctioning (< 4 %)	Substantial auctioning
Free allocation for industry + electricity generators	Transitional free allocation for industry and heat-related emissions (not for electricity generation)
Free allocation based on emissions at installation level	Free allocation based on specific emissions at product level
Free allocation based on historical emissions	Free allocation calculated through benchmarks
Legal basis:	Legal basis:
<ul style="list-style-type: none"> <li>• Directive 2003/87/EC</li> <li>• National Allocation Plans</li> <li>• Decisions of the EC on the NAPs</li> <li>• National Allocation Decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Revised Directive 2003/87/EC</li> <li>• Community-wide Implementation Measures (CIMs)</li> <li>• National Implementation Measures (NIMs)</li> </ul>

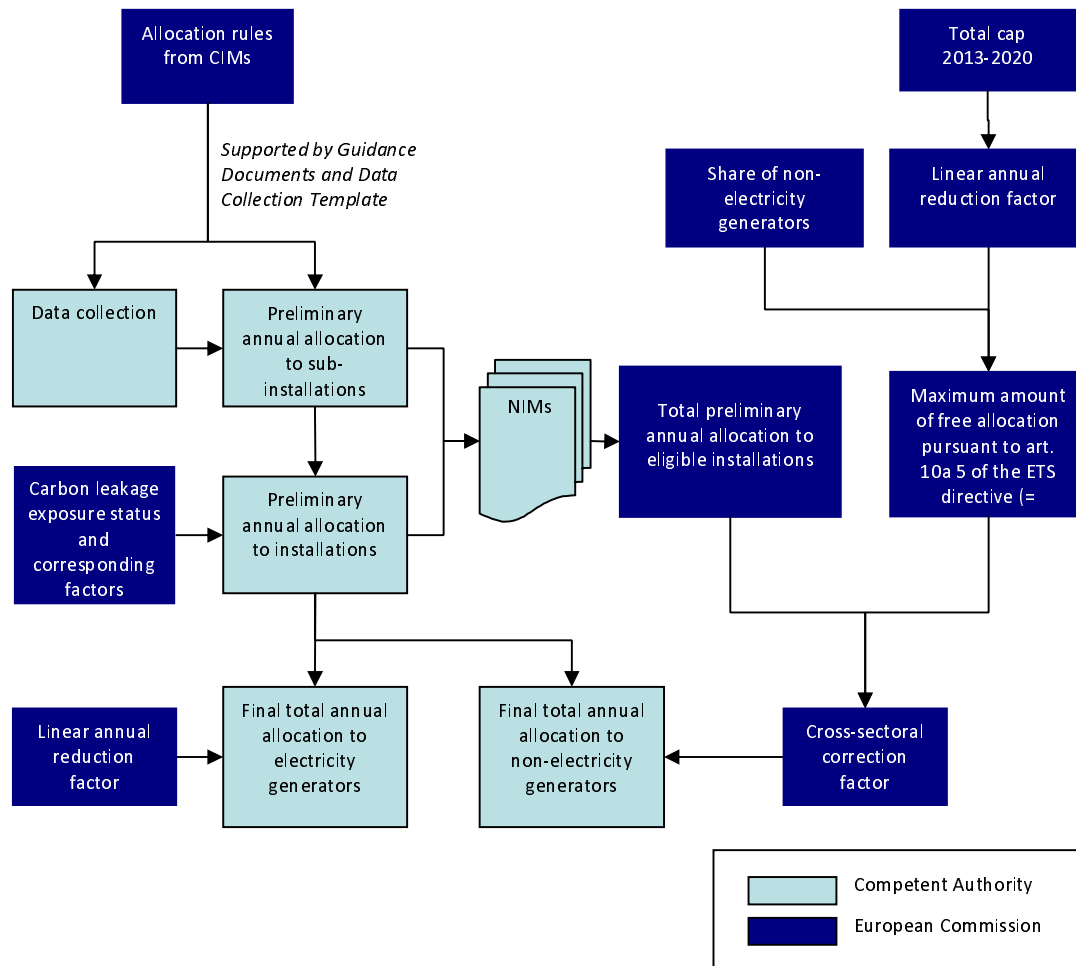
The total cap of emission allowances will decrease annually by 1.74% compared to the average annual total quantity of allowances issued by Member States in the 2<sup>nd</sup> trading period: the mid point of the period from 2008 to 2012 will be taken as reference (i.e. 2010). That annual reduction will lead to 21% reduction of emissions in 2020 compared to 2005<sup>5</sup>.

The amount of free allowances will be much reduced compared to previous Phases, since electricity generators are not eligible anymore for the part of their electricity production.

<sup>5</sup> Art. 9 of the revised ETS Directive

### 3 Description of allocation process

Figure 1 presents the main process leading to the final total annual amount of free allowances to installations.



**Figure 1: Process diagram of determination of final free allocation to installation**

The starting point of the process are the, so called, CIMs (“Community-wide and fully harmonised Implementing Measures”)<sup>6</sup>, the allocation methodology decision by the EC, which explains the basic elements of the harmonised allocation methodology in phase III. The CIMs list:

- eligibility criteria for free allocation
- definitions of sub-installations (which determine how to split an installation into different sub-installations, if applicable)
- rules for determining historical activity levels per sub-installation
- sub-installation system boundaries and benchmark values

<sup>6</sup> Commission Decision determining transitional Union-wide rules for the harmonized free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC



- rules for the application of the carbon leakage exposure factor
- rules in case of cross-boundary heat flows
- rules for verification

Based on the CIMs, it is the task of the Competent Authorities (CA) to calculate the preliminary annual allocation on a sub-installation level. The EC provides for an electronic template to facilitate data collection.

On the basis of collected data, each Member State shall publish and submit to the EC the list of **all** incumbent installations covered by the ETS Directive within its territory and any free allocation to each installation. Hereinafter we refer to that list as NIMs (National Implementation measures). The NIMs will contain:

- the preliminary annual number of emission allowances allocated for free to **sub-installations** (for the product, heat, and fuel benchmark sub-installations this is the benchmark value multiplied with the historical activity level)
- the preliminary annual number of emission allowances allocated for free per **sub-installation** multiplied by the relevant carbon leakage exposure factor
- the preliminary total annual amount of emission allowances allocated for free per **installation** (i.e. sum of the preliminary total annual amount of emission allowances per sub-installation)

The NIMs list shall include also installations that are classified as electricity generators<sup>7</sup> as well as the so called 'small emitters' referred to in Article 27 of Directive 2003/87/EC.

*See Guidance Document 2 on Allocation Methodologies for help and detailed guidance on how these values are calculated.*

The EC will collect the NIMs of all Member States and compare the preliminary annual amount of emission allowances (before application of carbon leakage factors) to non-electricity generators in the third trading period with the amount of allowances calculated according to art. 10a (5) of the ETS Directive. When needed, a cross-sectoral correction factor could be applied. If applied, the cross-sectoral correction factor would be identical for all installations identified as non-electricity generators. The need and value for the factor could differ for different years in the third trading period.

The preliminary total annual amount of emission allowances allocated for free per installation as determined by the relevant competent authority could therefore be different from the final total amount of emission allowances allocated for free: for installations identified as non-electricity generator the cross-sectoral correction factor might apply, and for installations identified as electricity generators the linear factor applies. In the case of non-electricity generators, the final allocation could therefore be

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<sup>7</sup> For the classification of electricity generators please refer to “Guidance paper to identify electricity generators” discussed by the EC and the Member States on 18 March 2010 for guidance

determined only once the need and the value of the cross-sectoral correction factor is determined.

## 4 Relevant installations

This section gives a general overview of eligible installations for EU-ETS phase III.

### 4.1 Which installations are in the NIMs?

The National Implementation Measures (NIMs) will list all “incumbents” of EU ETS<sup>8</sup>, i.e. installations that:

- Are part of the sectors included in EU-ETS phase III<sup>9</sup>: to make sure that an installation is part of the scope of the ETS please refer also to Guidance on Interpretation of Annex I of the EU ETS Directive (excl. aviation activities), CCC, 18 March 2010;

AND

- have obtained the GHG permit or are in fact operating and have obtained the relevant permits and fulfilled all criteria to do so by 30 June 2011.

Small emitters which a Member State may choose to exclude from the EU ETS pursuant to Article 27 of the EU ETS Directive have to be listed as well. As the Commission may assess and where appropriate reject such exclusions, these small emitters have to be considered as installations within the EU ETS in this first step.

Installations that join the EU ETS after 30 June 2011, so-called new entrants<sup>10</sup>, are not part of the NIMs.

### 4.2 Who gets free allocation?

All installations in the NIMs are in principle eligible for free allocation, except installations producing electricity only or installations operated for the capture, transport and storage of CO<sub>2</sub>.

For further details on eligibility criteria, refer to the relevant guidance documents, i.e.:

- For waste gases, refer to guidance document 8, specifically relating to waste gases
- For flaring and safety flaring, refer to guidance document 2 on allocation methodologies

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<sup>8</sup> For the formal definition of incumbents see Art 3(a) of the CIMs (Commission Decision determining transitional Union-wide rules for the harmonized free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC)

<sup>9</sup> See activities listed in Annex I of the revised EU-ETS Directive or is opted-in under Article 24 for the first time.

<sup>10</sup> For the definition of a 'new entrant' please refer to article 3(h) of directive 2003/87/EC

- For eligibility of heat for the heat benchmark, refer to guidance document 2 on allocation methodologies
- For eligibility of fuel for the fuel benchmark, refer to guidance document 2 on allocation methodologies
- For eligibility of process emissions, refer to guidance document 2 on allocation methodologies

Even if not eligible for free allocation, installations producing electricity only or installations operated for the capture, transport and storage of CO<sub>2</sub> shall be included within the NIMs list.

“New entrants”, which are not included in the NIMs, may also get free allocation. For the definition of and specific rules for new entrants, Guidance Document 7 on new entrants and closures gives further explanation.

## 5 Allocation methodologies

This section gives a general overview of allocation methodologies. For a more detailed explanation, see Guidance Document 2 on allocation methodologies, Guidance Document 5 on carbon leakage and Guidance Document 3 on data collection.

### 5.1 Overview of methodologies

In general, industrial production processes have fuel and/or heat as input, and a product and/or heat as output (Figure 2)<sup>11</sup>

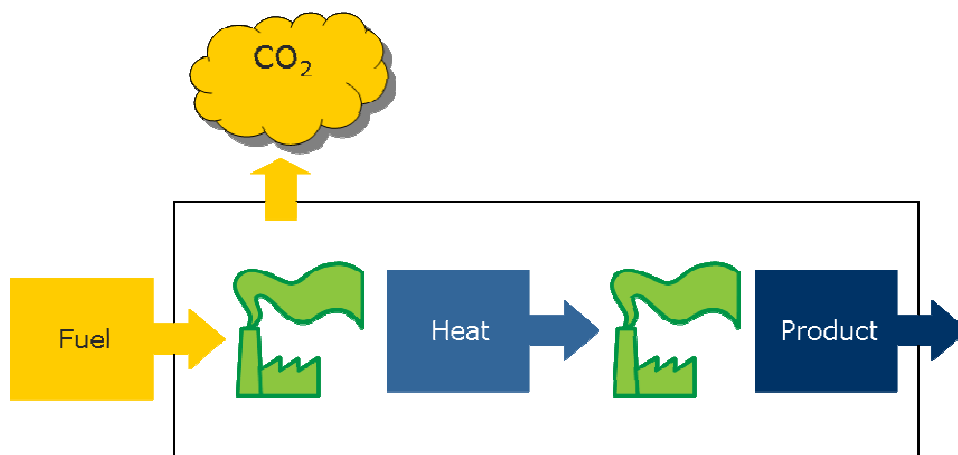


Figure 2: General picture of industrial production process

Each installation that is eligible for free allocation (see section 4.2) will receive allocation based on at least one of the following methodologies:

1. **Product benchmarking** (t CO<sub>2</sub> / t product); allocation is based on the production of products.
2. **Heat benchmarking** (t CO<sub>2</sub> / TJ of heat consumed); allocation is based on the amount of measurable heat consumed<sup>12</sup>.
3. **Fuel benchmarking** (t CO<sub>2</sub> / TJ of fuel used); allocation is based on the amount of fuel consumed.
4. **Process emissions approach**; allocation is 97.00% of historical emissions

<sup>11</sup> Electricity may also be an energy input to the industrial process, but in view of free allocation is in most cases not relevant to consider. An exception to this rule is the electricity consumption by production processes covered by product benchmarks in which the use of electricity and fuels are exchangeable. For more information on this topic see Section 3.1 of Guidance Document 2 on Allocation Methodologies.

<sup>12</sup> See Annex B for a definition of measurable heat

Using these methodologies, the preliminary annual number of emission allowances per sub-installation can be calculated for all sources of emissions in the EU-ETS that are eligible for free allocation. Table 2 summarizes the general characteristics of each allocation methodology. The table also shows when which methodology should be used. Proper use of the methodologies ensures that all emissions are covered by one and only one methodology.

*For more detailed conditions on the application of the allocation methodologies, we refer to Guidance Document 2*

**Table 2: Characteristics of the allocation methodologies**

Methodology	Value	Unit	Conditions	Relevant emissions
Product benchmark	See Annex I of CIMs	t CO <sub>2</sub> / unit product	- Product benchmark available	Emissions within system boundaries of product as referred to in Annex I of the CIMs
Heat benchmark	62.3	t CO <sub>2</sub> / TJ	- No product benchmark available - Heat is measurable	Emissions relating to production of the consumed measurable heat, not covered by a product benchmark
Fuel benchmark	56.1	t CO <sub>2</sub> / TJ of fuel	- No product benchmark available - Heat is not measurable - Fuel is combusted	Emissions originating from the combustion of fuels, not covered by product or heat production benchmark.
Process emission approach	97.00 % of historical emissions (tCO <sub>2</sub> )		- No product benchmark available - Heat is not measurable - Emissions are not resulting from combustion of fuel - Emissions are "process emissions" <sup>13</sup>	All emissions within installation not covered by previous approaches, but not including non-eligible emissions.

Regardless of the allocation methodology used, energy efficiency improvements anywhere in the production process chain will result in less heat or fuel demand per tonne of product, leading to fewer emissions per tonne of product.

## 5.2 Background to product benchmarks

The free allocation of allowances will be based to the extent feasible on community-wide ex-ante product benchmarks. A product benchmark is defined as the average of the 10% most greenhouse gas efficient installations, in terms of metric tons of CO<sub>2</sub> emitted per ton of product produced at European level in the years 2007-2008 (see Figure 3).

<sup>13</sup> According to art. 3(h) of the Commission Decision on benchmarking voted by the CCC on the 15<sup>th</sup> of December. For more details, please also refer to guidance document on allocation methodologies.

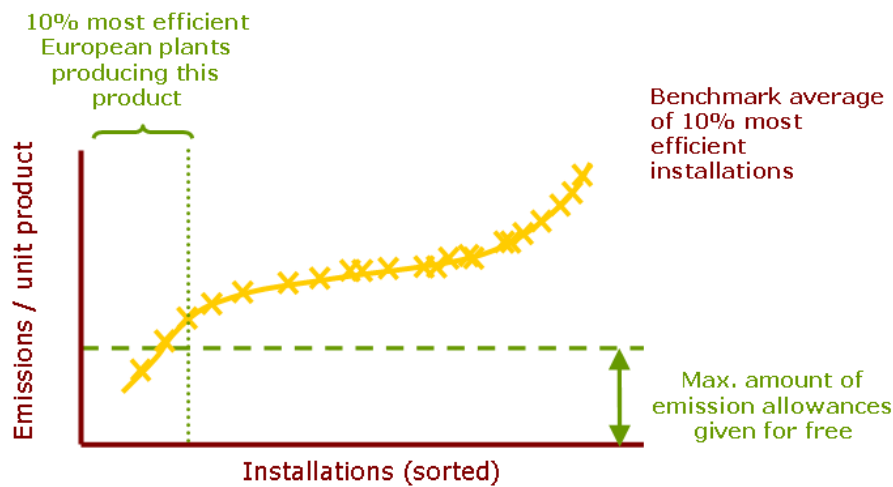


Figure 3: Determination of product benchmark value.

Product benchmarks are not differentiated by technology, fuel mix, size, age, climatic circumstances or raw material quality of the installations producing the product.

The Commission has consulted relevant stakeholders, including the sectors concerned, to determine the list of products for which product benchmarks should be used. The final list, which can be found in Annex I of the CIMs, contains 52 products for 21 sectors and covers about 80% (estimate) of the free allocation. The resulting list also contains definitions of system boundaries and products.

The preliminary annual number of allowances in the product benchmark approach is calculated by multiplying the benchmark value with the relevant historical activity level.

For the final total annual amount of emission allowances allocated free of charge, additional factors are applicable (see section 4.4).

*Additional guidance can be found in Guidance Document 3 on data collection, Guidance Document 2 on allocation methodologies, and Guidance document 9 with sector-specific guidance.*

### 5.3 Split into sub-installations

To correctly apply the relevant allocation methodology in the right order, the installation in many cases has to be split into so-called sub-installations.

A sub-installations means all inputs, outputs and corresponding emissions related to a specific allocation regime. The boundaries of a sub-installation are not necessarily defined

by boundaries of physical process units.<sup>14</sup> These inputs and outputs should take in due account only relevant source streams<sup>15</sup>, as monitored according to the MRGs and listed within the monitoring plan, if any<sup>16</sup>. This means that source streams related to non ETS activities or gases shall not be taken into account while splitting the installation into sub-installations. A deep knowledge of the scope of the ETS and of the MRGs is required when performing the split into sub-installations exercise. *Guidance Document 2 on allocation methodologies provides further information on this topic.*

If an installation produces more than one product with a product benchmark (suppose there are  $n$  product benchmarks applicable), then  $n$  “sub-installations” need to be defined, with the system boundaries of each sub-installation matching with the boundaries of the respective product benchmark. For these sub-installations, the product benchmark methodology should be applied.

The remaining part of the installation (the part for which no product benchmarks apply) can be divided into a maximum of 6 sub-installations: one sub-installation deemed exposed to carbon leakage and one deemed not exposed to carbon leakage, for each fall back methodology (see also paragraph 5.4.1), as is shown in the table below.

**Table 3: Maximum number of possible sub-installations in case of fall back approaches**

<b>Allocation Methodology</b>	<b>Carbon leakage</b>	<b>Non-carbon leakage</b>
Heat benchmark	1	1
Fuel benchmark	1	1
Process emissions approach	1	1

In principle, heat is eligible for free allocation if it can be regarded as covered by the ETS and if it is not produced via electric boilers. This is in particular likely to be the case for measurable heat directly linked (combustion process or exothermic production process) to source streams which are contained in the monitoring plan (MP) of an installation covered by the EU ETS.

Exceptions to this rule are the following:

- The export or consumption of heat produced in the nitric acid production process is not eligible for free allocation as this heat is already taken into account by the nitric acid benchmark. (see Art 10 (6) of the CIMs)
- The consumption of heat produced by a non-ETS plant or unit (not covered by a GHG permit) is not eligible for free allocation. (see Art. 9 (3) and Art. 13 of the CIMs)

<sup>14</sup> See CIMs for formal definitions of four types of sub-installations: a product benchmark sub-installation (Art. 3(b)), a heat benchmark sub-installation (Art. 3(c)), a fuel benchmark sub-installation (Art. 3(d)) and a process emissions sub-installation (Art. 3(h)).

<sup>15</sup> a 'source stream' means a specific fuel type, raw material or product giving rise to emissions of relevant greenhouse gases at one or more emission sources as a result of its consumption or production

<sup>16</sup> Installations which boundaries have changed according to revised scope of directive 2003/87/EC may not have the monitoring plan approved before the submission of the NIMs list



The export or consumption of heat used for electricity generation is not eligible for free allocation. (see Art. 3 (c) and 9 (3) of the CIMs)

**Carbon leakage: why are there two sub-installations possible per fall-back approach?**

Consider a fictitious dairy plant with a boiler that produces measurable heat for both the production of milk powder (deemed exposed to carbon leakage in EC decision 2010/2/EU<sup>17</sup>) and for a liquid milk sterilization process (not deemed exposed to carbon leakage in EC decision 2010/2/EU<sup>18</sup>). Neither of the products is covered by a product benchmark, therefore the heat benchmark methodology should be applied if possible. Since there is measurable heat consumed in these production processes, indeed this fall-back approach is applicable. However, the heat is consumed by two production processes that have two different carbon leakage statuses applicable. Therefore, the consumed heat (produced by the boiler) has to be split into two sub-installations: one for each carbon leakage status<sup>19</sup>.

In addition, the definition of ‘heat benchmark sub-installation’ refers to all inputs, outputs and corresponding emissions of the sub-installation (see Article 3(c) of the CIMs). Therefore in line with this definition, all these flows should be grouped into one sub-installation, or a maximum of 2 sub-installations only if 2 different carbon leakage status apply. The same applies to the other fall-back approaches, leading to the maximum number of n+6 sub-installations.

*See Guidance Document 3 on Data Collection for details on how to apply a distribution key to attribute activities to more than one sub-installation.*

Due care should be taken that:

- No overlap occurs between the sub-installations (no double-counting)
- The corresponding inputs (fuel, heat, etc.) and outputs (products, heat, electricity, etc.) have all been taken into account.

## 5.4 Correction factors

The preliminary annual amount of allocation determined at sub-installation level can be lowered by several correction factors, which are briefly described here.

### 5.4.1 Carbon leakage exposure factor

*Detailed explanation can be found in Guidance Document 5 on carbon leakage.*

The preliminary annual amount of emission allowances is multiplied by the so-called “carbon leakage exposure factor” (CLEF).

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<sup>17</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32010D0002:EN:NOT>

<sup>18</sup> *ibid.*

<sup>19</sup> If at least 95% of the total heat consumed in the installation has the same carbon leakage status, it can be assumed that the remaining amount of consumed heat (5% or less) has also this same carbon leakage status. The same “de minimis” rule applies to fuel benchmark sub-installations and to process emissions sub-installations. The rule is explained in more details in guidance document 5 on carbon leakage.

The Commission has established a list of sectors and sub-sectors deemed to be exposed to a significant risk of carbon leakage<sup>20</sup>. The carbon leakage exposure factor (CLEF) used for allocation to these sectors is 1.00 for all years.

For allocation to sectors not on this list, the carbon leakage exposure factor is 0.80 in 2013 declining to 0.30 in 2020. This implies that installations that are part of these sectors each year receive less allowances than the year before. The operators of those installations therefore have to buy more and more allowances in order to comply (assuming a constant emissions over the years).

Table 4 gives an overview of carbon leakage exposure factors:

**Table 4. Overview of carbon leakage exposure factors**

Year	2013	2014	2015	2016	2017	2018	2019	2020
Exposure factor (CLEF) for significant carbon leakage (CL) risk	1	1	1	1	1	1	1	1
CLEF for no significant CL risk <sup>21</sup>	0.8000	0.7286	0.6571	0.5857	0.5143	0.4429	0.3714	0.3000

After application of the Carbon Leakage Exposure Factor either the Cross-Sectoral Correction Factor or the linear reduction factor should be applied.

#### 5.4.2 Cross-sectoral correction factor

To all installations which are not identified as “electricity generator” the cross-sectoral correction factor should be applied, if necessary.

A cross-sectoral correction factor could be needed to ensure that the total amount of free allocation to non-electricity generators does not exceed the maximum amount of free allocation pursuant to art. 10a (5) of the revised ETS directive<sup>22</sup>. The preliminary free allocation could therefore be different from the final free allocation that operators would receive.

<sup>20</sup> Note that the list is applicable for the 2013 and 2014 years only. During the calculation of the NIMs it should be assumed for calculation reasons that this list of sectors and sub-sectors also applies for the years 2015-2020.

<sup>21</sup> The values of CLEF (k) in the non exposed case for each year k (from 2013 up to 2020) are calculated as:  
 $CLEF(k) = 0.5/7 * (2020 - k) + 0.3$

<sup>22</sup> Maximum amount of free allocation pursuant to art. 10a (5) of the revised ETS directive = total ETS cap \* (1 - share of emissions from electricity generators and carbon capture, transport, and storage with respect to total emissions).

The need, and if applicable the value, for a cross-sectoral correction factor will be assessed by the Commission after receiving all NIMs, on the basis of the preliminary free allocation, before application of the carbon leakage factor. If applied, the cross-sectoral correction factor would be identical for all installations. The need and value for the factor could differ for different years in the third trading period.

*See also Sector 2 of this Guidance Document and Sector 6 of Guidance Document 2 for the equation for the application of the cross-sectoral correction factor.*

#### **5.4.3 Linear reduction factor**

In line with Article 9 of the revised Directive, the total amount of allowances issued for free shall decrease each year from 2013 in a linear manner by a factor of 1.74%. For installations that are identified as “electricity generator”, as well as new entrants, the preliminary total annual amount of allocation will therefore be reduced each year with 1.74% of the preliminary total annual amount of allocation with 2013 as the reference year.

*See Sector 6 of Guidance Document 2 for the equation for the application of the linear reduction factor.*

## References

- MEMO/08/796, “Questions and Answers on the revised EU Emissions Trading System”, Brussels, 17 December 2008
- Directive 2003/87/EC, revised consolidated version, 25 June 2009
- Discussion Paper on Allocation Rules - EU ETS post 2012, version 3.0 of 20 July 2010
- Guidance on Interpretation of Annex I of the EU ETS Directive (excl. aviation activities), CCC, 18 March 2010.

## Annex A Timeline - key dates from the revised EU-ETS

December 2010	Positive vote on the CIMs in the CCC
April 2011	After a three-months scrutiny period by the Parliament and the Council, the Commission adopts Community-wide and fully-harmonised implementing measures for the allocation of the allowances. <sup>23</sup>
30 June 2011	Date which separates “new entrants” and “incumbents”. See section 3.1 of this guidance document. <sup>24</sup>
30 September 2011	Publication and submission of National Implementation Measures by MSs <sup>25</sup>
28 February 2013	Issuance of the first quantity of free allowances of the third trading period to installations. <sup>26</sup>

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<sup>23</sup> Article 10a(1) of the revised ETS Directive

<sup>24</sup> Article 3h of the revised ETS Directive

<sup>25</sup> Article 11(1) of the revised ETS Directive

<sup>26</sup> Article 11(2) of the revised ETS Directive

## **Annex B List of definitions**

*This annex provides a list of definitions of concepts relevant for free allocation in phase III of the EU ETS. The definitions given here are informal definitions which have been developed to facilitate understanding. The definitions in this Annex do not replace definitions as given in the legal texts of the revised EU ETS Directive or the CIMs and have no legal status.*

### ***Allowance***

Allowance to emit one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of the revised ETS Directive and shall be transferable in accordance with the provisions of the revised ETS Directive.

### ***Annex I activities***

List of activities in the first Annex of the Revised EU ETS Directive, which defines “categories of activities to which the Directive applies”. In other words: Annex I defines activities and activity thresholds determining which installations should be included in the EU ETS Community scheme.

### ***Combustion of fuels***

Any oxidation of fuels, regardless of the way in which the heat, electrical or mechanical energy produced by this process is used, and any other directly associated activities, including waste gas scrubbing. See also ‘other fuel combustion’.

### ***Competent Authority***

Competent Authority or Authorities as designated under Article 18 of Directive 2003/87/EC. Each Member State can have one or more Competent Authorities.

### ***Electricity Generator***

Installation that, on or after 1 January 2005, has produced electricity for sale to third parties, and in which no activity listed in Annex I is carried out other than the ‘combustion of fuels’.

### ***EU ETS Directive***

Directive 2003/87/EC, most recently amended by Directive 2009/29/EC, making it the so-called “revised EU ETS Directive”.

### ***Incumbent***

Any installation within the scope of the EU ETS, which is not a new entrant.

### ***Installation***

A stationary technical unit where one or more activities listed in Annex I of the EU-ETS Directive are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution

### ***Measurable heat***

Measurable heat flows has all of the following characteristics:

- They are net meaning that the heat content in the condensate or transfer medium returning to the heat supplier is subtracted
- The heat flows are transported through identifiable pipelines or ducts

AND

- The heat flows are transported using a heat transfer medium, e.g. steam, hot air, water, oil, liquid metals or salts

AND

- The heat flows are or could be measured by a heat meter (where a heat meter is any device that can measure the amount of energy produced based upon flow volumes and temperatures)

### ***New entrant***

- any installation carrying out one or more activities listed in Annex I of Directive 2003/87/EC or an activity included in the Union scheme for the first time in accordance with Article 24 of that Directive which obtained a greenhouse gas emission permit after 30 June 2011 and was not entitled to receive the greenhouse gas emissions permit before this date on the basis of Article 3a(ii) of the CIMs,
- any installation carrying out one or more of the activities indicated in Annex I or an activity which is included in the Community scheme pursuant to Article 24(1) or (2) of the revised ETS Directive, which has had a significant capacity extension after 30 June 2011, only in so far as this extension is concerned;

### ***Operator***

Any person who operates or controls an installation or, where this is provided for in national legislation, to which decisive economic power over the technical functioning of the installation has been delegated;

### ***Process emissions sub-installation***

Process emissions sub installation can be any of the following, when emissions originated occur outside the boundaries of a product benchmark:

- non-CO<sub>2</sub> greenhouse gas emissions (i.e. N<sub>2</sub>O for specific sectors; see Annex I of Directive 2009/29/EC for the list of activities for which N<sub>2</sub>O emissions are included in the EU-ETS for phase 3)
- CO<sub>2</sub> emissions from any of the activities (i) to (vi) listed in Art 3(h) of the CIMs
- Emissions from the combustion of the CO emitted by any of activities (i) to (vi) listed in Art 3(h) of the CIMs, if it is combusted to produce heat or electricity. Only

emissions which are additional to the emissions that would occur if natural gas was used are taken into account. Also only the “technically usable energy content” is considered, which means that a correction based on the difference in efficiencies between the use of waste gas and the use of the reference fuel the amount is applied to the resulting amount. This type of process emissions refers to waste gases. See Guidance Document 8 on Waste Gases for more guidance on this topic.

'Process emissions' as defined by Monitoring and Reporting Guidelines are not necessarily coincident with 'process emissions' defined when dealing with sub-installation splitting for the purpose of allocation

***Sub-installation***

A sub-installations means all inputs, outputs and corresponding emissions related to a specific allocation regime.

***Waste gases***

Waste gases when they occur outside the boundaries of a product benchmark are gases containing incompletely combusted carbon produced as a result of any of activities (i) to (vi) listed in Art 3(h) of the CIMs. *See Guidance Document 8 on Waste Gases for more guidance on this topic.*



## **Annex C    List of abbreviations**

Adt	Air Dried Tonnes
BFG	Blast Furnace Gas
BOFG	Blast Oxygen Furnace Gas
BM	Benchmark
CA	Competent Authorities
CCS	Carbon Capture and Storage
CEMS	Continuous Emissions Monitoring Systems
CEN	European Committee for Standardization
CHP	Combined Heat and Power
CIM	Transitional Community-wide and fully harmonised Implementing Measures pursuant to Article 10a(1) of the EU ETS Directive
COG	Coke Oven Gas
CSF	Cross Sectoral Correction Factor
CWT	CO <sub>2</sub> weighted tonne
EC	European Commission
CLEF	Carbon leakage Exposure Factor
ETS	Emissions Trading Scheme (in these Guidance Documents refers to EU-ETS)
EU ETS	European Emissions Trading Scheme
GDP	Gross Domestic Product
GHG	Greenhouse Gas

HAL	Historical Activity Level
IPPC	Integrated Pollution Prevention and Control
ISO	International Organization for Standardization
MS	Member States
MRG	Monitoring and Reporting Guidance
MRV	Monitoring, Reporting and Verification
NAP	National Allocation Plans
NCV	Net Calorific Value
NIM	National Implementation Measures
RF	Reduction Factor
QA/QC	Quality Assurance / Quality Control
RCUF	Relevant Capacity Utilization Factor
SCUF	Standard Capacity Utilization Factor
UCTE	Union for the Co-ordination of Transmission of Electricity
VCM	Vinyl Chloride Monomer